L 61835-65

ACCESSION NR: AT5014462 2

contradictory opinions persist concerning the migration of Nb and Nb-containing compounds from the weld into the surrounding regions (A. V. Ratner, P. M. Gura, R. Ye. Mazel', Teploenergetika, 1962, no. 8, p. 12-17; O. L. Petrov, Neodnorodnost metalla svarnykh soyedineniy, L., Sudpromgiz, 1963, p. 204). Consequently, the authors applied the autoradiographic method to the problem and found that there is no significant migration of Nb, neither during the welding process nor during prolonged high-temperature aging. This confirms the qualitative conclusions based on the calculations of diffusion mobility of alloying elements within steel. This means that the strong carbide producers Ti and Nb cannot be responsible for the observed tendencies towards local disruption. The results also show that within the weld, Nb is distributed quite unevenly and is located mostly in interdendritic sections and on the crystallite boundaries. Experiments with reduced Nb yielded results which coincide qualitatively with earlier data by L. S. Livshits and L. P. Bakhrakh (Svarochnoye proizvodstvo, 1959, no. 1, p. 20-22). Orig. art. has: 2 formulas, 5 figures, and 1 table.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: ME

Card 2/2 NO REF SOV: 012 OTHER: 002

ACC NR: AR6033021 SOURCE CODE: UR/0196/66/000/007/I003/I003

AUTHOR: Ignatov, V. A.; Andreyev, E. V.

TITLE: Some problems in the designing of end-type induction motors using printed windings

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 7I14

REF SOURCE: Tr. Vses. zaochn. energ. in-ta, vyp. 29, 1965, 126-135

TOPIC TAGS: electric motor, conductor, printed winding

ABSTRACT: A method is given for calculating the dimensions of the printed winding of an end-type electric motor with evolute shaped front sections. The external and internal diameters of the plate, the number of conductors n in the winding, the minimal width of conductor b_{min} and the minimal distance between two adjacent conductors b_{min} are given in the calculation. First, the diameter of the base circumference of the front section evolute is determined by the formula

$$d_0 = \frac{n(b_{min} + b_{min})}{\pi}$$

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ACC NR: AR6033921

Then the width of the internal front sections and the external diameter of the active zone is calculated. This is done on the basis of the known internal diameter of the front sections and the known central angle corresponding to the half of the polar pressure. The influence of the printed winding conductor thickness on the starting torque and on the motor utilization factor, whose values decrease with the decreasing conductor thickness, are studied. Orig. art. has: 3 figures. Bibliography of 10 titles. N. Astakhov.

SUB CODE: 09/

Card 2/2

IGNATOV, V.A.

Mutual assistance. Zashch. rast. ot vred. i bol. 9 no.7:5-6 '64.
(MIRA 18:2)

1. Nachal'nik Kaliningradskoy stantsii zashchity rasteniy.

IGNATOV, V. F.

696. An automatic device for signalling the level of powder in hoppers.—M. I. Kolesnik and V. F. Ignatov (*Ogneupory*, 21, 276, 1956). In Russian. (3 pp., 2 figs.)

Zaporskiy ogneupornyy zavod.

IGNATOV, V. F.

#7

1730. Dressing of Kimpersaiskii chrome ores by electromagnetic separation — V. F. IGNATOV, and M. I. KOLESNIK (*Ogneupory*), 22, 97, 1957). In Russian.
The ores, which consist of chrome spinel and gangue, occur as (1) highly impure, (2) slightly impure and (3) compact deposits. They were crushed and graded from 0·5 to 4 mm. Two materials, a mixture of (1) and (2) and the normal run-of-mine ore, were separated in a high-intensity electromagnetic separator. The mixed ores yielded 80·89% of concentrate (44·5–49% Cr_2O_3). With normal run-of-mine ore the Cr_2O_3 content of the concentrate rose by 7 to 10%; the yield of concentrate was 77·8–79·1%. (50·75–54·6% Cr_2O_3). >3-mm cannot be separated by the present apparatus. (7 figs., 3 tables.)

ZAPOROZHSKIY OGNEUPORNYY ZAVOD.

AUTHOR: Ignatov, V.F.

131-3-9/16

TITLE: Enrichment of Magnesite Powder by Magnetic Separation (Opyt obogashcheniya magnezitovogo poroshka magnitnoy separatsiyey)

PERIODICAL: Ogneupory, 1958, Vol 23, Nr 3, pp 136-138 (USSR)

ABSTRACT: Burnt magnesite powder contains calcium oxide, so that waste is produced as a result of the hydration of lime. This can be prevented by storing the moistened magnesite powder or -mass at a certain temperature, which, however, complicates the technological process and is not a full remedy. For the purpose of separating grains with a free content of lime the method of magnetic separation was employed. The magnetic properties of different grains which form the components of the magnesite powder MPMZ produced by the plant "Magnezit", where investigated. Five groups of grains were separated, which is described in detail (table 1). On the strength of experimental results magnesite powder with a size of grain of 3.0 - 1.0 mm was treated by means of an electromagnetic separator (see illustration). Test results are given in table 2.

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Enrichment of Magnesite Powder by Magnetic Separation

131-3-9/16

The content of CaO in the enriched powder was reduced, which caused the editors of this periodical to recommend all scientific research institutes to accelerate the development of a rational scheme for the enrichment of burnt magnesite powder. There are 1 figure, 2 tables, and 4 references, all of which are Slavic.

AVAILABLE: Library of Congress

Card 2/2 1. Magnesite powder-Purification 2. Calcium oxide-Elimination

15(2) SOV/72-59-1-11/16

AUTHOR: Ignatov, V. F.

TITLE: Conversion of Periodic Furnaces From Solid Fuel to Natural Gas Heating (Perevod pechey periodicheskogo deystviya s tverdogo topliva na prirodnyy gaz)

PERIODICAL: Steklo i keramika, 1959, Nr 1, pp 33-35 (USSR)

ABSTRACT: Gas burners were used for the conversion of the kilns (Fig 1), causing a decrease of the temperature gradient in the kiln chamber and an improvement of firing conditions (Fig 2). On choosing the optimum firing conditions for ceramic pipes the working characteristics with gas, the temperature gradient, the shape of the products, the moisture of the raw products and the degree of volume changes on heating of the products were considered (Fig 3). Concerning the waste quota and the firing quality the temperature conditions of curve 2 in figure 4 have proved to be the best. Curves 2 and 4 in figure 5 offer the best cooling conditions. By the conversion of the kilns the working conditions have been considerably improved and it has been possible to reduce the number of workers, to improve the quality and the design of the pipes

Card 1/2

Conversion of Periodic Furnaces From Solid Fuel to Natural Gas Heating

and to reduce the amount of firing waste. In conclusion, the editors state that the experience of the Khar'kovskiy keramikotrubnyy zavod (Khar'kov Work for Ceramic Pipes) in the field of kiln conversions has to be considered in designing and constructing new gas heating systems. There are 5 figures.

ASSOCIATION: Khar'kovskiy keramiko-trubnyy zavod
(Khar'kov Work for Ceramic Pipes)

ALENT'YEV, A.A., doktor tekhn.nauk; IGNATOV, V.F., inzh.

Study of the physicomechanical and thermal properties of ceramic material during burning. Stroi. mat. 9 no.4:32-34 Ap '63. (MIRA 16:5)

(Ceramic materials--Testing)

BONDAR', Zinaida Adamovna; IGNATOV, V.I., red.

[Jaundices] Zheltukhi. Moskva, Meditsina, 1965. 391 p.
(MIRA 18:4)

L 29347-66 EWP(j)/EWT(m) RM/JW/WE

ACC NR: AP6018625 (A) SOURCE CODE: UR/0065/66/000/006/0053/0056

AUTHOR: Chertkov, Ya. B.; Ignatov, V. M.

52
B

ORG: none

TITLE: Comparison of the effectiveness of jet-fuel additives

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1966, 53-56

TOPIC TAGS: fuel additive, jet fuel, additive effectiveness

ABSTRACT: A study has been made of the effect on jet fuels of the following additives: 1) 2,6-di-tert-butyl-p-cresol (Ionol); 2) p-hydroxydiphenylamine, designated PODFA in the source; 3) FOA-2, made by Dupont; and 4) a C_{21} aliphatic amine with a tertiary carbon atom in the alkyl group, recommended by Esso. The experiments were conducted with TS-1 fuel containing about 0.13% total sulfur and about 0.003% mercaptan sulfur, and with a highly hydrogenated fuel (3—4% aromatic hydrocarbons). This highly hydrogenated fuel was tested with and without individual sulfur compounds of various types added in amounts permitted by GOST specifications for standard TS-1 fuel. The following amounts of additives were used: 1,3, or 4, 0.05%; 2, 0.01%. The fuels were heated with agitation at 150C for 6 hr in air. It was shown that: 1) Ionol and PODFA inhibit initial oxidation of the fuel components; 2) FOA-2 and the aliphatic amine inhibit oxidative condensation of existent soluble oxygen compounds which would form insoluble

Card 1/2 UDC: 665.521.3

L 29347-66

sediments in the absence of additives; 3) at high fuel temperatures and in the presence of reactive sulfur compounds, such as mercaptans, Ionol and PODFA, unlike FOA-2 and the aliphatic amine, do not protect copper and copper alloys from corrosion. Orig. art. has: 3 tables. [BO]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS: 5009

Card 2/2 CC

L 31871-65

ACCESSION NR: AR5005868

order boundary condition is assumed on the boundary separating the cylinder from the medium. From the temperature field in the cylinder, obtained under such assumptions, the authors seek the heat flux on the boundary separating the cylinder from the medium. The flux is set equal to $\alpha(T_c - T_0)$, where α -- coefficient of heat transfer from the cylinder to the current, T_c and T_0 -- the initial temperatures of the medium and of the cylinder, respectively. From this the authors obtain the functional dependence of α on the time, on the thermophysical characteristics of the medium, and on the cylinder material.

It is noted in conclusion that this functional dependence can be readily established by applying similarity theory to the initial system of differential equations. A. B. Karasev.

SUB CODE: ME, TD ENCL: 00

Card 2/2

L 14656-66 EWT(1)/EWP(m)/EWT(m)/ETC(f)/EPF(n)-2/EWG(m)/EWA(d)/ETC(m)-6/EWA(1)
ACC NR: AT6003094 JD/WW SOURCE CODE: UR/3181/63/000/015/0253/0256

AUTHORS: Kudryashev, L. I. (Professor, Doctor of technical sciences); Ignatov, V. P.

ORG: Kuybyshev Aviation Institute (Kuybyshevskiy aviatsionnyy institut); Joint Scientific-Technical Conference on Problems of the Mechanics of Liquid and Gas (Kustovaya nauchno-tekhnicheskaya konferentsiya po voprosam mekhaniki zhidkosti i gaza)

TITLE: On the relationship between the external and internal heat transfer processes during overflowing of a cylinder by an infinite plane-parallel flow

SOURCE: Kuybyshev. Aviatsionnyy institut. Trudy, no. 15, pt. 2, 1963. Doklady kustovoy nauchno-tekhnicheskoy konferentsii po voprosam mekhaniki zhidkosti i gaza (Reports of the Joint scientific-technical conference on problems of the mechanics of liquid and gas), 253-256

TOPIC TAGS: heat transfer, uniform flow, Nusselt number, temperature distribution, thermal conduction, unsteady process

ABSTRACT: A theoretical analysis was made to establish a relationship between the

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external heat transfer and internal conduction over a cylinder of radius R in an infinite fluid. The governing equations, initial, and boundary conditions of the problem are given by

$$\frac{\partial t_1(r,\tau)}{\partial \tau} = a_1\left[\frac{\partial^2 t_1(r,\tau)}{\partial r^2} + \frac{1}{r}\frac{\partial t_1(r,\tau)}{\partial r}\right]_{(\tau>0;\ 0<r<R)};$$

$$\frac{\partial t_2(r,\tau)}{\partial \tau} = a_2\left[\frac{\partial^2 t_2(r,\tau)}{\partial r^2} + \frac{1}{r}\frac{\partial t_2(r,\tau)}{\partial r}\right]_{(\tau>0;\ R<r<\infty)};$$

$$t_1(r, 0) = t_0;\ t_2(r, 0) = t_c$$

$$\frac{\partial t_1(0,\tau)}{\partial r} = 0;\ t_1(0,\tau) \neq \infty;$$

$$\frac{\partial t_2(\infty,\tau)}{\partial r} = 0;$$

$$t_1(R,\tau) = t_2(R,\tau);\ -K_1\frac{\partial t_1(R,\tau)}{\partial r} = -K_2\frac{\partial t_2(R,\tau)}{\partial r}$$

where the initial fluid temperature t_c is less than the initial cylinder temperature t_0. After some algebraic manipulations, the solution of the above system yields the following expression for the heat transfer coefficient

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ACC NR: AT6003094

$$Nu = \frac{\alpha \cdot D}{\lambda_2} = \frac{8 \cdot K_1^2}{\pi R} \cdot b \cdot (K_a^{\frac{1}{2}};\ K_{\lambda 1};\ F_{01}).$$

$$b = \int_0^\infty \frac{I_1^2}{\mu[\gamma^2(\mu) + \psi^2(\mu)]} \cdot e^{-\mu^2 F_{01}} \cdot d\mu;$$

$$K_\lambda = \frac{\lambda_1}{\lambda_2};\quad K_a = \frac{a_1}{a_2};\quad F_{01} = \frac{a \cdot \tau}{D^2}.$$

The connection between the internal conduction and external forced convection can then be shown through the functional expression

$$Nu = \Phi(F_0;\ Re;\ Pr;\ K_a;\ K_\lambda).$$

Orig. art. has: 17 equations.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 002

Card 3/3

112-2-4713 D

TRANSLATION FROM: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 2, p. 319 (USSR)

AUTHOR: Ignatov, V. S.

TITLE: A Sectoral Radio Beacon With Phase Control of the Antenna Radiation Pattern; Analysis of Instrument Errors and Ways of Minimizing Them (Sektornyy radiomayak s fazovym upravleniyem diagrammoy napravlennosti;analiz instrumental'nykh oshibok i metody ikh umen'sheniya)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Leningrad Higher Marine Engineering College (Leningr. vyssh. inzh.-mor. uch-shche), Leningrad, 1956.

ASSOCIATION: Leningrad Higher Marine Engineering College (Leningr. vyssh. inzh.-mor. uch-shche)

Card 1/1

SOV/108-13-9-9/26

AUTHOR: Ignatov, V. S.

TITLE: Instrument Errors of a Differential-Phase Inverter (Instrumental'nyye pogreshnosti differentsial'nogo fazovrashchatelya)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 9, pp. 58-63 (USSR)

ABSTRACT: This is an investigation of a number of factors influencing the performance of a differential phase inverter. The errors caused by these factors are estimated quantitatively and a method of measuring these errors is given. It is shown that some errors of the phase inverter may cancel. The following summarizing statements can be made: 1) The accuracy of the performance of a phase inverter is to a high degree dependent upon the perfection of the design and upon the careful production of the goniometer. Among all errors investigated these are the most important, which are caused by the following circumstances: a) by the inhomogeneity of the magnetic field within the goniometer, b) by an inequality of the voltages at the diagonals of the capacitive bridge and c) by the inaccurate mutual position of the stators of the goniometer. In the development of phase inverters it is necessary to take special measures for reducing these

Card 1/2

Instrument Errors of a Differential-Phase Inverter SOV/108-13-9-9/26

errors. 2) A necessary condition for an accurate performance of a phase inverter is an accurate balancing of the capacitive bridge and a weakening of the spurious capacitance coupling in the goniometer. 3) A possible detuning of the phase of the transformer exerts only a small influence upon the accuracy of the phase inverter. If in the operation of the phase inverter the usual standards and precautions are taken this error can be neglected. There are 1 figure and 5 references, 3 of which are Soviet.

SUBMITTED: March 20, 1957 (initially) and February 13, 1958 (after revision)

Card 2/2

IGNATOV, V., kand.tekhn.nauk, starshiy- nauchnyy sotrudnik

Sector radio beacons with phase control of the directional diagram. Mor.flot 19 no.6:40-41 Je '59. (MIRA 12:9)

1.Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
(Radio beacons)

IGNATOV, V.S., kand. tekhn. nauk

Instrumental errors of sector radio beacons with phase-controlled direction diagrams. Trudy TSNIIMF no.23:24-32 '59. (MIRA 12:8)

(Radio beacons)

IGNATOV, V.S.

Direction finding accuracy of medium-wave radio stations in the Arctic. Probl.Arkt.i Antarkt. no.2:67-76 '60.
(MIRA 13:6)
(Arctic regions--Radio direction finders)

The publication is intended for goegraphers, oceanographers, and readers interested in the Arctic and Antarctic regions. This collection of 19 articles published by the Arctic and Antarctic Scientific Research Institute deals with ice conditions in the Arctic seas, with atmospheric circulation and anticyclones, aurora phenomena, and methods of oceanographic observation .

IGNATOV, V.S.

Estimating the accuracy of determining the deviation of terrestrial radio direction finders by the use of aircraft. Probl.Arkt.i Antarkt. no.3:115-118 '60. (MIRA 13:9)
(Radio direction finders)
(Arctic regions--Aeronautics in surveying)

COVERAGE: This publication of the Arctic and Antarctic Scientific Research Institute contains articles on the water temperature in the Arctic Basin, the tides of Arctic seas, the structure of Arctic cyclones and anticyclones, radiosonde measurements of temperature, the determination of ice thickness by dipole electromagnetic methods, and magnetic activity in relation to geographical longitude and latitude. No personalities are mentioned. References follow each article.

IGNATOV, V.S.

At the Vostok Station. Inform. biul. Sov. antark. eksp. no.16:37-38 '60. (MIRA 13:12)
(Vostok region, Antarctica—Atmospheric temperature)

IGNATOV, V.S., kand.tekhn.nauk

Preliminary results of auroral observations at the South Geomagnetic Pole. Inform.biul.Sov.antark.eksp. no.18: 24-27 '60. (MIRA 13:7)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
(Auroras--Spectra)

IGNATOV, V.S., kand.tekhn.nauk

Thermal method of studying the structure of the Antarctic snow and firn cover. Inform. biul. Sov. antark. eksp. no.21:16-18 '60. (MIRA 13:10)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
(Antarctic regions--Snow--Density)

12.6000 2111

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S/169/61/000/009/018/056
D228/D304

AUTHOR: Ignatov, V. S.

TITLE: The trial thermal cutting of ice holes at the Vostok station

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 9, 1961, 55, abstract 9V451 (Inform. byul. Sov. antarkt. ekspeditsii, no. 22, 1960, 22-24)

TEXT: One of the designs of a melter, by means of which the cutting of holes with a maximum depth of 52 m was accomplished, is described. 16 electric coils, divided into 4 groups each with a power of 1 kw, are set in the melter's hermetic frame. To increase the melter's efficiency, its frame was filled with fused aluminum. The high efficiency of the melter is noted together with its ability to effect cutting in a mass of continental ice during the complete absence of water filtration on the melting of the ice. From 5 to 8 hours are spent in the hoisting of the melter from a depth of 40 - 50 m. [Abstracter's note: Complete translation.]

Card 1/1

39105
S/169/62/000/006/089/093
D228/D304

lunar observations of ...

General rise in the magnetic activity during this period, is especially developed. The radio reflection minimum falls on the hours around noon (8 - 14 hrs). Comparison of the diurnal variations of the radio reflections, the magnetic activity, and the frequency of the sporadic E_s-layer's appearance showed that between them there appears to be a sufficiently close correlation, which is displayed in the image of diurnal regularities. Examination of the magneto- [illegible] shows, however, that there are also periods when auroral radio reflections arise at the time of a quiet magnetic field. Analysis of the spatial distribution of radio reflections showed that they mainly arrive from the north-east quadrant, with a maximum lying in the azimuth 45 - 90°. The number of reflections is approximately symmetrical in relation to the azimuth. In the slant range distribution of radio reflections there is one maximum at 650 - 750 km. This corresponds to a reflection height of 100 - 120 km. [Abstracter's note: Complete translation.]

Card 2/2

IGNATOV, Veniamin Stepanovich; BYLINYAK, S.A., red.; [illegible] M.I., mladshiy red.; VILINSKAYA, E.N., tekhn. red.

[One year at the cold pole] God na poliuse kholoda. Moskva, Geografgiz, 1962. 143 p. (MIRA 15:6)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut (for Ignatov).

(Antarctic regions--Russian exploration)

radiant forms prevail in the second half. A maximum, at 21-22 hr local time, is especially distinctive in the diurnal variation of the frequency of auroras. A "morning" maximum (06-08 hr) is also expressed sufficiently clearly, but it is considerably smaller than the "evening" maximum. The monthly variation of auroras has one maximum, falling approximately on the middle of the polar night (June). There is a minimum of visible auroras in September. Most auroras were observed at an angle of from 0 to 30° above the horizon. They were usually of considerable intensity. Analyzing magnetic-ionospheric disturbances and auroras gives some grounds for supposing that a second inner zone of activity exists near the South Magnetic Pole. The observational results showed that the green line λ 5577 [OI] and the violet bands $INGN_2^+$ λ 3914 Å, λ 4278 Å, which also impart a characteristic blue-green color to most auroras, are most intense and are always present in the spectra of southern auroras. The red lines $\lambda\lambda$ 6300 and 6364 Å [OI] were observed regularly, too, but their intensity was considerably less. The intensity of these emissions grows considerably as the

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000518410004-8

S/169/62/000/011/068/077
Spectroscopic observations ... D228/D307

magnetic activity intensifies. $INGN_2^+$ λ 4708 Å emission had a smaller intensity in the auroral spectrum. The emissions $\lambda\lambda$ 4340, 6563 Å were also observed in the spectra of auroras of great intensity. Since the wavelength measurements coincide with H_γ and H_α, these emissions may be presumed to belong to neutral hydrogen. The yellow sodium doublet λ 5890, 5896 Å was recorded regularly at dawn and dusk. Sodium lines were noted, too, in auroral and airglow spectra. Transitory (from several minutes to an hour) "flashes" of the line [OI] λ 5577 Å were sometimes observed at night, especially at dawn. The intensity of all other spectral lines also decreased simultaneously with the green line radiation "splashes". Moonlit clouds are indistinguishable from auroras on photos of the C-180 camera. The spectral method of observation is free from these disadvantages and can be recommended for unerring auroral registration.
[Abstracter's note: Complete translation]

IGNATOV, V.S.; MILYAYEV, N.A.; NIKOL'SKIY, A.P.

Results of geophysical studies in the central Arctic. Probl. Arkt.i Antarkt. no.11:65-74 '62. (MIRA 16:2)
(Arctic regions—Magnetism, Terrestrial)
(Arctic regions—Ionospheric radio wave propagation)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000518410004-8

L 2160

S/203/62/002/001/010/019
I023/1223

AUTHOR: Ignatov, V.S.

TITLE: Some results of ionospheric observations at the South geomagnetic pole

PERIODICAL: Geomagnetizm i Aeronomiya, v.2, no.1, 1962, 91-98

TEXT: Ionospheric data collected at the station Vostok ($\varphi_s = 78^\circ 27'$, $\lambda_E = 106^\circ 52'$; $\Phi = 89^\circ 1'$, $\Lambda = 92^\circ 6'$) in 1959 are presented. The data were obtained by means of a automatic ionospheric station having the following properties: 1) frequency range: 1-18Mc, 2) pulse duration: 50-70μ sec, 3) pulse repetition: 50cps, 4) minimum power output: 2.5Kwatt/pulse, 5) receiver sensitivity 10 μV with a signal to noise ration 2:1 6) frequency marks - every 1Mc, 7) height marks - every 50km. Low pressure (450-490 mm Hg) caused breakdown of the electronic equipment. Very low humidity interfered with the film. Bad grounding reduced antenna efficiency. The structure of the

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S/203/62/002/001/010/019
I023/I223

Some results of ionospheric...

Ionosphere near the south geomagnetic pole is such, that f-min. is often lower than 1Mc. The E layer is at a height of 90-120km, the ionization density is connected with the zenith angle of the Sun. The critical frequency has a maximum approximately at noon, reaching ~ 3.5Mc in the summer, and decreasing in winter. The F layer is at a height of 200-600km. The maximum critical frequency of F_1 was observed in summer at noon: 5Mc, and of F_2 in April: ~ 8.8Mc. Strong ionospheric disturbances were observed in May and July, they seem to be connected with an increase of the solar activity level. Data on sporadic formations in the E layer are given. Characteristics of radio communication at medium and short waves are discussed. There are 6 figures and 2 tables.

ASSOCIATION: Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut (Arctic and Antarctic Research Institute)

SUBMITTED: November 27, 1961

Card 2/2

43157

S/203/62/002/003/006/021
I023/I250

AUTHOR: Ignatov, V.I.

TITLE: Ionospheric disturbance at the poles of homogeneous magnetization

PERIODICAL: Geomagnetizm i Aeronomiya, v.2, no.3, 1962, 464-469

TEXT: The following characteristics of ionospheric disturbances in the regions of poles of homogeneous magnetization are investigated. Appearances of complete absorption-blackouts; anomalous increase of the critical frequencies of the sporadic layer E_s ($f_0 E_s \geq 3$ Mega-cycles); considerable deviations of $\Delta f_0 F2$ from the medians ($\Delta f_0 F2$ 20%) determined for every full hour of the day on several magnetically calm days. Data collected during 1959 are used. The diurnal and seasonal variations of the parameters are determined for the Vostok station, located near the South geomagnetic pole. The results are compared with data from the Thule station, located near the North geomagnetic pole. It is shown that there are no essential differences between the structure of the ionosphere near the Southern and

Card 1/2

S/203/62/002/003/006/021
I023/I250

Ionospheric disturbance...

the Northern geomagnetic poles. Typical areas of E and F are observed in both places in the summer. The layer F1 disappears with the polar night and is replaced by the night-layer E which may be observed at any time. Similarity of the course of disturbances in the ionosphere near the magnetic poles is proved though there are some local features, caused by climatic conditions, the geographical positions of the poles, etc. The total level of ionization during the whole year can vary appreciably between the two stations. There are 4 figures and 11 references.

ASSOCIATION: Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut (Arctic and Antarctic Research Institute)

SUBMITTED: January 26, 1962

Card 2/2

IGNATOV, V. S., kand. tekhn. nauk

Stability of the supporting surface of the landing strip at Vostok Station. Inform. biul. Sov. antark. eksp. no.32:39-43 '62. (MIRA 16:4)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

(Vostok Station, Antarctica--Runways(Aeronautics))

[redacted], V.I., kand.tekhn.nauk (Stantsiya Vostok, Antarktida)

At the Pole of cold. Priroda 51 no.9:74-76 S '62. (MIRA 15:9)
(Antarctic regions)

IGNATOV, V.S.

Connection between auroras, ionospheric and magnetic disturbances in Antarctica. Trudy AANII 241 no.4:99-103 '62. (MIRA 15:8)
(Antarctic regions--Auroras)
(Antarctic regions--Magnetic storms)

L 10502-65 EEO-2/EWT(d)/EEC-4/EED-2 Pn-4/Po-4/Pp-4/Pq-4/Pg-4/Pk-4/Pl-4
SSD/RAEM(a)/AFWL/ESD(gs)/ESD(c)/RAEM(t) BC

ACCESSION NR: AR4046021 S/0274/64/000/007/B049/B049

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Svodnyy tom, Abs. 7B302

AUTHOR: Ignatov, V. S.

TITLE: Principal technical characteristics of a sector radio range

CITED SOURCE: Inform. sb. Tsentr. n.-i. in-ta morsk. flota, vyp. 98, 1963, 32-39

TOPIC TAGS: radio range, directional pattern, bearing

TRANSLATION: Principal technical characteristics are considered of a sector radio range with phase-controlled directional pattern; recommendations for selecting optimum characteristics are given. A formula is developed for the width of directional-pattern lobes and for the accuracy of bearing determination depending on the base length (distance between the radio-beacon outer antennas); the concept of equisignal-zone width is analyzed; a formula for the zone rotation speed is developed; power relations in the antennas are considered, as well as the interdependence between the principal technical characteristics. Three illustrations. Bibliography: 2 titles.

SUB CODE: NO ENCL: 00

Card 1/1

IGNATOV, V.V.

Iodometric determination of the penicillinase of staphylococci. Lab. delo 8 no.10:35-37 '62 (MIRA 17:4)

1. Kafedra biologicheskoy khimii (zav. - prof. N.N.Ivanovskiy) Saratovskogo meditsinskogo instituta (dir. - dotsent N.R. Ivanov).

IGNATOV, V.V.

Nucleotide composition of Staphylococcus albus resistant to penicillin. Antibiotiki 8 no.6:503-506 Je'63 (MIRA 17:3)

1. Kafedra biologicheskoy khimii (zav. - prof. N.N.Ivanovskiy) Saratovskogo meditsinskogo instituta.

IGNATOV, V.V.

Nucleotide composition of the DNA of staphylococci resistant to antibiotics. Zhur.mikrobiol.,epid. i immun. 41 no.5:100-101 My '64. (MIRA 18:2)

1. Saratovskiy meditsinskiy institut.

L 04844-67 EWT(1) GW

ACC NR: AP7000249 SOURCE CODE: UR/0213/66/006/003/0519/0528

AUTHOR: Vasil'chikov, N. V.; Ignatov, Ye. I.; Shumilov, A. V. 11 B

ORG: Department of Oceanology, Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvenyy universitet, Kafedra okeanologii)

TITLE: Redesign of the 'Okean' hawser winch into a cable winch

SOURCE: Okeanologiya, v. 6, no. 3, 1966, 519-528

TOPIC TAGS: winch, connecting cable

ABSTRACT: The redesign of the "Okean" hawser winch into a cable winch has been described in detail, accompanied by seven detailed diagrams and phtotgraphs. Detailed directions are given for splicing the cable (a method developed by the All-Union Scientific Research Institute of Geophysics); the diameter of the cable to all intents and purposes is not enlarged at the splicing point and there is no change of the mechanical and electrical characteristics of the cable. The redesigned winch and the mentioned splicing method have successfully withstood all tests. Orig. art. has: 7 figures. [JPRS: 37,058]

SUB CODE: 13 / SUBM DATE: 08 Apr 65

Card 1/1 UDC: 551.46.073: 621.866

0923 0725

IGNATOV, Ye.M., inzhener; TEREKHIN, M.P., starshiy tekhnik.

Simplified type of anchor pull rods for 25-50 meter mast. Vest. sviazi 14 no.3:28 Mr '54. (MLRA 7:5)
(Radio--Antennas)

5(3), 11(5)

SOV/152-59-1-17/31

AUTHORS: Klimenok, B. V., Ignatov, E. M.

TITLE: Partial Freeing of Diesel Fuel From Paraffin by an Aqueous Carbamide Solution (Partsial'naya deparafinizatsiya dizel'nogo topliva vodnym rastvorom karbamida)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959, Nr 1, pp 63 - 68 (USSR)

ABSTRACT: Two variants of the partial freeing of diesel fuel from paraffin by means of an aqueous carbamide solution are described in the present paper. The procedure is to free widely one part of the diesel fuel from paraffin and subsequently to intermix the freed part with the unfreed one. By the first variant, diesel fuels with low solidification point were obtained by extensive freeing part of the fuel itself from paraffin. By the second variant, they were obtained through extensive freeing of the heavy fractions from paraffin. Under investigation were diesel fuels extracted from the Ural-Volga petroleum. Their evaporation temperatures were between 210 and 350°, the solidification point was at -13°,

Card 1/3

density at 20°C amounted to 0.8430, the refraction index at 20° C amounted to 1.4680, viscosity at 20° C amounted to 4.423 centistokes and the content of ordinary paraffins about 26%. The diagram resulting from the investigation of the first variant shows that 1) the solidification point is no additive quantity. With each additional per cent of the share of fuel freed from paraffin in the mixture, the solidification point drops accordingly; 2) to obtain a standard cold-weather diesel fuel with the solidification point at -45°, the fuel freed from paraffin must be mixed with the unfreed part in a ratio of about 2:1 (parts by weight); 3) to obtain a standard diesel fuel with the solidification point at -60° for arctic temperatures, the ratio mentioned must be about 6:1. On the basis of curve 3 (Fig 3) obtained on investigating the second variant it is possible to determine which heavy fraction is to be separated and submitted to extensive freeing from paraffin in order to obtain a diesel fuel with the desired solidification point after mixing the freed part of the fraction with the distillate. The two variants are compared to each other. The comparison shows that the yield

Partial Freeing of Diesel Fuel From Paraffin by an Aqueous Carbamide Solution SOV/152-59-1-17/31

of freed-from-paraffin diesel fuel is larger with the second variant, namely, by 2% when producing cold-weather diesel fuel with the solidification point at -45°. There are 4 figures, 4 tables and 1 Soviet reference.

ASSOCIATION: Ufimskiy neftyanoy institut (Ufa Petroleum Institute)

SUBMITTED: October 28, 1958

Card 3/3

IGNATOV, Yu.

It is necessary to raise the requirements for the quality of meat products. Mias.ind.SSSR 30 no.2:21 '59.
(MIRA 13:4)

1. Starshiy inzhener inspektsii po kachestvu myasa (Azerbaydzhanskaya SSR).
(Meat industry--Quality control)

SHAKHOIL'DYAN, V.V.; IGNATOV, Yu.F.

Determination of the region of synchronous operation of an automatic phase frequency trim system. Elektrosvias' 19 no.10:33-37 O '65. (MIRA 18:12)

1. Submitted Nov. 28, 1964.

L 02404-67 EWT(d) GD

ACC NR: AT6022339 SOURCE CODE: UR/0000/66/000/000/0013/0018

AUTHOR: Petrishchev, V. I.; Shakhgil'dyan, V. V.; Ignatov, Yu. F.

50
B+1

ORG: None

TITLE: Experimental investigation of the statistical properties of a system for phase automatic frequency control

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya teorii i tekhniki peredachi diskretnykh signalov. Doklady. Moscow, 1966, 13-18

TOPIC TAGS: AFC, filter circuit, low frequency, phase detector

ABSTRACT: The authors describe the experimental equipment and measurement methods used for studying a typical phase AFC circuit (see figure on card 2) consisting of a phase detector (PD), low-frequency filter (LFF), control element (CE) and tuned oscillator (TO). The experimental model was built with semiconductor devices to eliminate the effect of variations in the a-c supply voltage. Oscillator stability was improved by thermostatic control. Harmonic voltage was fed to the PD input from a standard generator (SG) together with normal stationary noise from a special generator (NG). The experiment consisted of determining the average frequency difference between TO and SG, the average time for operation of the system in the synchronous state (the

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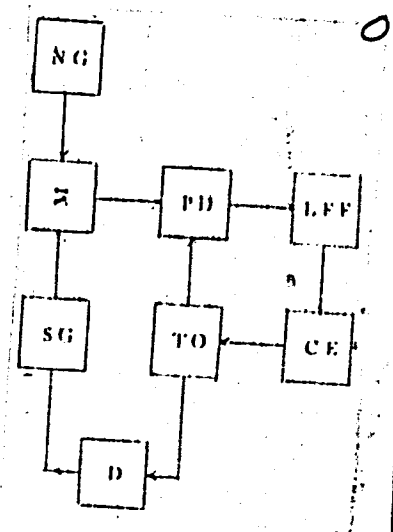
average time between two phase displacements by $\pm 2\pi$), the density distribution for phase difference and the probability for disruption of synchronization. A special device was developed for this purpose (D in the figure). Experimental results are given for two specific low-frequency filters. Analysis of the experimental data shows that a proportionally integrating filter with a large time constant and zero initial mismatch gives an average time to disruption of synchronization which is independent of the time constant and increases with a reduction in the ratio of R_1C to $(R+R_1)C$. The average time for synchronous operation with a proportionally integrating filter is nearly independent of the initial mismatch up to 0.1Δ where Δ is the frequency band of the system. There is a sharp reduction in the average time to disruption of synchronization when mismatch is increased beyond 0.1Δ. The average frequency difference for the system in this case is practically independent of the relative time constant if the initial mismatch is no greater than the holding band. When the holding band is less than the initial mismatch, the average frequency difference increases sharply with the relative time constant. The average time for synchronous operation also increases with the relative time constant when the initial mismatch is zero. However, as the



L 02404-67

ACC NR: AT6022339 O

relative time constant increases, there is an increment in the phase of TO by $n \cdot 2\pi$ (n=1, 2,...) with each individual disruption of synchronization, n increasing with the relative time constant. Orig. art. has: 5 figures, 4 formulas.

SUB CODE: 09/ SUBM DATE: 09Apr66

Card 3/3

L 58814-65 EWT(d)/EWT(l)/EWT(m)/EPF(c)/EEC(k)-2/EPF(n)-2/EWG(m)/EPR/T/EWG(c)
Pr-4/Pu-4 IJP(c) RWH/WW/JAJ/RM

ACCESSION NR: AP5015695 UR/0076/65/039/006/1536/1537
543.544

37
36
B

AUTHOR: Ignatov, Yu. I.; Shostenko, Yu. V.; Gubina, T.N.

TITLE: Effect of deep cooling on the properties of ion exchangers

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 6, 1965, 1536-1537

TOPIC TAGS: ion resin exchanger, ion exchange, morphine adsorption, resin cooling, calcium adsorption, adsorptive capacity

21

ABSTRACT: The effect of low temperatures on the properties of KU-1, KU-2, and KFU ion exchange resins was studied by immersing the latter in liquid nitrogen for 10 hr, then keeping them in air at room temperature for 24 hr. No changes in adsorptive capacity (determined by adsorption of calcium ions) or in external appearance were observed. The swelling increased by 15-20%. Because of this increase, it was expected that the ion exchangers would perferentially adsorb organic ions as compared to untreated exchangers. Static experiments with morphine hydrochloride confirmed this hypothesis. It is concluded that the thermal treatment of condensation cation-exchangers may be used to alter their selectivity, particularly in the adsorption of large organic ions. Preliminary exposure of ion exchangers to low temperatures is preferred to treatment at high

Card 1/2

L 58814-65

ACCESSION NR: AP5015695

temperatures because no ionogenic groups are destroyed. Orig. art. has: 2 figures.

ASSOCIATION: Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut (Khar'kov Scientific Research Chemico-Pharmaceutical Institute)

SUBMITTED: 07Jan65 ENCL: 00 SUB CODE: IC, OC

NO REF SOV: 002 OTHER: 000

Card 2/2 ADP

IGNATOV, Yu.I.; IZMAYLOV, N.A. [deceased]

Exchange of ions of different valency in nonaqueous solvents. Zhur. fiz. khim. 39 no.10:2482-2485 O '65.

(MIRA 18:12)

1. Khar'kovskiy khimiko-farmatsevticheskiy institut i Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo. Submitted July 20, 1964.

IGNATOV, V. V.

Preparing pelts for processing (at warehouses and bases) Moskva, Gos. izd-vo tekhn. i ekon. lit-ry po voprosam zagotovok, 1952. 52 p.
(Biblioteka zagotovitelia)
(54-21781)

TS1061.I 5

Ignatov, Yu. V.

AUTHORS: Ignatov, Yu.V., and Tret'yakova, L.I. 28-4-10/35

TITLE: Determination of the Warmth-Insulating Properties of Clothing Material (Opredeleniye teplozashchitnykh svoystv odezhnykh materialov)

PERIODICAL: Standartisatsiya, 1957, # 4, July-August, pp 39-42 (USSR)

ABSTRACT: The article considers the theory of heat exchange through clothing and means of measuring this heat.

The authors criticize the standard device - ГОСТ 6068-51- which is based on a stationary flow of heat (clothing in contact with the skin on one side and with a rigid stationary object on the other, as in sitting or leaning). According to the Research Institute for Wool and other organizations, the accuracy of this device is about 10%.

Widest used are the measuring devices based on the theory of normal conditions, developed by Professor G.M. Kondrat'yev. The bicalorimeter (Fig. 2) is based on this principle. The average accuracy of measured cooling is, with the use of this device, 2-3%; the duration of a test is 12-20 min. The bicalorimeter enables not only the measurement of the thermal resistance value of various materials but also the changes of these properties with changes of the physical and mechanical factors.

Card 1/3

Determination of the Warmth-Insulating Properties of Clothing Material

An investigation of cotton-wool linings enabled the determination of a linear relation between the total thermal resistance and the weight of linings (Fig. 3). A chart is given that shows the total thermal resistance of some animal pelts, nylon fur, cotton and wool materials. The simplicity and convenience of the bicalorimeter have been noted by individual investigators and by institutes, such as S.G. Zyrin, N. Ye. Nikiforova, D.A. Mendel'son, of the Leningrad institutes of Precision Mechanics and Optics, of Work Hygiene and Occupational Diseases, and others. Extensive use of this instrument in the research laboratories is, however, handicapped by the absence of a standard.

The authors say in conclusion that this standard would be best developed by the laboratory of Professor G.M. Kondrat'yev at the Leningrad Institute for Precision Mechanics and Optics.

Card 2/3

There is 1 drawing, 3 graphs and 1 table.

28-4-10/35

Determination of the Warmth-Insulating Properties of Clothing Material

ASSOCIATION: All-Union Research Institute for Animal Raw Materials and Furs (Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnogo syr'ya i pushniny) and Moskva Technological Institute of Light Industry (Moskovskiy tekhnologicheskiy institut lëgkoy promyshlennosti)

AVAILABLE: Library of Congress

Card 3/3

IGNATOV, Yu.V., starshiy nauchnyy sotrudnik

Heat insulating properties of the various kinds of marmot and nutria skins. Nauch.issl.trudy NIIMP no.11:41-51 '62. (MIRA 16:5)
(Hides and skins—Thermal properties)

TSEREVITINOV, B.F.; IGNATOV, Yu.V.; IGNATENKO, V.B.; KRUSHINSKIY, V.V.

Heat insulating properties of fur hats. Kozh.-obuv.prom. 4 no.12:19-22 D '62. (MIRA 16:1)
(Clothing, Cold weather—Testing)

IGNATOV, Yu.V.

Wear resistance of sheep pelts and artificial fur. Kozh.-obuv. prom. 7 no.5:18-21 My '65. (MIRA 18:8)

IGNATOV, Yuriy Vladimirovich

IVANITSKIY, Svyatoslav Yur'yevich, inzh.; IGNATOV, Yuriy Vladimirovich, inzh.; KARMANOV, Boris Sergeyevich, inzh.; ROGOZHIN, Vsevolod Vyacheslavovich, inzh.; BEKMAN, V.V., inzh., retsenzent; GINTSBURG, M.G., retsenzent; SMELYANSKIY, V.A., inzh., red.; UVAROVA, A.F., tekhn.red.

[Motorcycles; construction, theory, design] Mototsikl; konstruktsiia, teoriia, raschet. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 503 p. (MIRA 11:4)
(Motorcycles)

PAKSHVER, E.A.; IGNATOVA, A.I.; VINOGRADOV, G.V.

Temperature dependence of the viscosity of polymer solutions. Vysokom. soed. 7 no.11:1964-1967 N '65. (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh volokon i Institut neftekhimicheskogo sinteza AN SSSR.

SEMEVSKAYA, V.Ye.; PODLUBNAYA, Ye.T.; IGNATOVA, A.V.

Improved methods for the analysis of fusel oil. Trudy TSNIISP no.6:155-163 '58. (MIRA 14:12)
(Fusel oil--Analysis)

OSHMYAN, G.L.; IGNATOVA, A.V.

Selective extraction of volatile acids from aqueous solutions with ethyl ether. Trudy TSNIISP no. 8:130-136 '59.
(MIRA 14:1)

(Acids)

OSHMYAN, G.L.; IGNATOVA, A.V.

Identification of free and esterified volatile acids in vodka.
Trudy TSNIISP no. 8:136-139 '59. (MIRA 14:1)
(Vodka) (Acids)

OSHMYAN, G.L.; IGNATOVA, A.V.; SUSYKINA, A.V.

Production of the heavy type rum. Trudy TSNIISP no. 13:34-40 '62. (MIRA 17:5)

S/137/61/000/012/141/149
A006/A101

AUTHORS: Shcherbakov, V. G., Anikeyeva, N. P., Ignatova, A. Ya., Magala, T.Z.

TITLE: A method of spectral analysis to determine impurities in high-purity molybdenum metal

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1961, 4, abstract 12K22 ("Sb. tr. Vses. n.-i. in-t tverdykh splavov", 1960, no. 3, 56-63)

TEXT: Mo-anhydride obtained by calcination of Mo metal at 550 - 600°C is mixed with carbon powder in a ratio of 4 portions MoO_3 and 1 portion carbon powder, to obtain carbide formation. A portion of the mixture obtained is placed into a carbon container with a carbon electrode cover. The container is placed between graphite electrodes. A carbon receiver is placed above. The container temperature rises within 1 minute up to 1,900°C, holding time is 60 seconds. The spectra of the carbon receivers with the condensates are photographed with the aid of a spectrograph in an a-c arc of 3 amp intensity. The width of the spectrograph slit is 0.01 mm. To determine Fe, Al, Si and Mg, the carbon mixture with 6% CuO in respect to the carbon weight was mixed with MoO_3 in a 1 : 1 ratio. The carbon electrodes were manufactured with a 3 mm cup, the

Card 1/2

S/137/61/000/012/141/149
A006/A101

A method of spectral analysis ...

upper electrodes were truncate-cone-shaped. Prior to taking the photographs, the electrodes were roasted in an a-c arc of 10 amps intensity. The distance between the spectrograph slit and the light source was 250 mm, the slit width was 0.012 mm. The spectrum excitation source was a 10 amp d-c arc. The sample was connected to the arc anode.

L. Vorob'yeva

[Abstracter's note: Complete translation]

Card 2/2

IGNATOVA, E.

Country	:	Bulgaria
Category	:	Human and Animal Physiology, Circulation
Abs. Jour.	:	Ref Zhur Biol, No. 8, 1959, No. 8087
Author	:	[illegible] I.; Angelov, A.; Nikolov, A.; Kasakova, A.; Chuleva, A.; Mushmov, D.; Ignatova, E.; Nikolova, M.; Mischev, T.
Title	:	The Effect of the Bulgarian Synthetic Oestrogenic Preparation "Vitestrol" on Blood Pressure.
Orig Pub.	:	Izv. Otd. biol. i med. nauki. Bolg. AN. Sér. eksperim. biol. i med., 1957, No. 1, 47--55
Abstract	:	Vitestrol was injected in doses of 0.5, 1.5 and 5 mg/kg into normal, atropinized, vagotomized and decerebrate cats, as well as into cats with carotid sinuses removed. Vitestrol lowered blood pressure by 16--37% (depending upon the dose) within 72--393 seconds. There were no substantial differences between the normal and the operated animals. It is suggested that vitestrol acts directly upon the smooth muscle elements of the vessel walls.--G.B.Stefanov.

5

Card: 1/1

ZHELIAZKOV, D.K.; KOZLOVSKI, G.; NIKOLOVA, M.P.; IGNATOVA, E.P.

Experimental and clinical studies on hair growth stimulating effect of trichlorotriethylamine (TS-160). Suvrem. med., Sofia 8 no.10: 72-83 1957.

1. Iz Katedrata po farmakologiia pri VMI--Sofiia (zav. katedrata: prof. P. Nikolov) i Katedrata po dermatologiia pri VMI--Sofiia (cav. katedrata: prof. L. Popov).

(NITROGEN MUSTARDS, effects,
trichloroethylamine on hair growth (Bul))
(ETHYLAMINES, effects,
same)
(HAIR, effect of drugs on,
trichloroethylamines on growth (Bul))

PETROVA, Stella Vladimirovna; VOLKOVA, Nina Mikhaylovna; SARANTSEVA, L.S., retsenzent; IGNATOVA, G.I., retsenzent; RYCHKOVA, O.I., red.

[Technology of the tailoring of men's suits] Tekhnologiia poshiva muzhskikh kostiumov. Moskva, Legkaia industriia, 1964. 269 p. (MIRA 19:1)

69686
S/126/60/009/03/006/033
E111/E452

18.8100
18.5110

AUTHORS: Druzhinin, V.V. and Ignatova, G.V.

TITLE: Crystallographic Texture and Anisotropy of the Magnetic Properties of Hot-Rolled Dynamo Steel

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 3, pp 353-357 (USSR)

ABSTRACT: Druzhinin has previously shown that there is a considerable crystallographic texture in hot-rolled dynamo steel leading to appreciable magnetic anisotropy (Ref 1) which can be in either of two directions. In the present work, the authors have studied this effect in different sheets from packets rolled in various ways at the Verkh-Isetsk Metallurgical Works (two of the rolling procedures are shown in Fig 1 and 2; the third being different in that it did not involve doubling). Sheets were rolled to a thickness of 0.5 mm from 10.2 in eleven passes. For studying texture, 40 mm diameter discs were cut from each sheet and their moments determined magnetometrically with an inter-pole field of 3000 oersted. Magnetization was effected at various angles to the direction of rolling (Fig 3, 5 and 6 show

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S/126/60/009/03/006/033
E111/E452

Crystallographic Texture and Anisotropy of the Magnetic Properties of Hot Rolled Dynamo Steel

moment as a function of the angle for rolling by procedures 1, 2 and 3 respectively). Anisotropy of magnetic-induction was studied on 250 x 30 mm strips cut out at various angles to the direction of rolling; Fig 4 shows magnetic induction as a function of this angle. The authors conclude that crystallographic texture anisotropy is due to sheets being doubled during rolling. Rolling without reversing the texture type is {100} ⟨100⟩; with reversing it is mainly {110} ⟨100⟩ with some {100} ⟨110⟩. In sheets with a {100} ⟨110⟩ texture, best properties are obtained when magnetization is effected at 30 to 45° to direction of rolling; with the other texture, when magnetization is effected parallel to this direction. Differences in the crystallographic texture in rolling with and without reversing is associated with rolling conditions in two-high stands with a single driving shaft when the roll-pressure on the sheet is not at 90°. The authors suggest that further work is needed to elucidate the mechanism of the formation of different textures.

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69686
S/126/60/009/03/006/033
E111/E452

Crystallographic Texture and Anisotropy of the Magnetic Properties of Hot Rolled Dynamo Steel

Experimental rolling of the steel was carried out by engineers A.V.Serebrennikov and A.G.Korsunskiy. There are 6 figures, 1 table and 2 Soviet references.

ASSOCIATION: Verkh-Isetskiy metallurgicheskiy zavod (Verkh-Isetsk Metallurgical Works)

SUBMITTED: July 11, 1959

Card 3/3

SOV/126-6-3-12/32

AUTHORS: Zakharova, M. I., Ignatova, I. A. and Khatunova, N. A.

TITLE: Investigation of the Phase Transformation $\gamma \rightarrow (\gamma + \alpha)$ in Alloys of Iron with Nickel (Issledovaniye fazovogo prevrashcheniya $\gamma \rightarrow (\gamma + \alpha)$ v splavakh zheleza s nikelem)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 3, pp 475-479 (USSR)

ABSTRACT: The polymorphous transformations in alloys of iron with 30 and 32% Ni are investigated since in spite of the fact that much work has been done on the problem of $\gamma \rightarrow (\gamma + \alpha)$ transformations in Fe-Ni alloys (Ref 1), the extreme stability of the non-equilibrium state in these alloys has so far not been satisfactorily clarified. The alloys were produced from electrolytic iron and electrolytic nickel. After casting, the alloys were subjected to homogenization annealing at 1000°C for ten hours, then to heating for 18 hours at 600°C which was followed by quenching in water. The single crystals were produced by the method of recrystallisation at 1200°C; after continuous annealing for 60 hours, crystals of 20 mm^2 grew in 1 mm thick plates. The investigations were effected by X-ray and microscopic analysis of polycrystalline specimens and

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SOV/126-6-3-12/32

Investigation of the Phase Transformations $\gamma \rightarrow (\gamma + \alpha)$ in Alloys of Iron with Nickel

X-ray analysis of static single crystals. The process of polymorphous transformation was studied for isothermal heating at a temperature of 400°C; at this temperature a 32% Ni containing alloy in the equilibrium state should contain about 27% of the α-phase. For investigating the $\gamma \rightarrow (\gamma + \alpha)$ transformation by X-ray structural analysis, powder was filed from the homogenized specimen which was heated at 600°C for 20 hours and then subjected to isothermal annealing at 400°C. The X-ray patterns were photographed using iron radiation in cameras of 11⁴ cm dia; the specimen dia. equalled 0.4 mm. It was established that at 400°C the transformation is very slow. Deformation of the alloys at room temperature does not only accelerate the process of γ to α transformation; deformation of an alloy after being subjected to martensite transformation at -196°C will accelerate also the reverse γ to α transformation. At temperatures above the martensitic point, the initial stage of the γ to α transformation proceeds according to the relations governing the reconstruction of

Card 2/3

Investigation of the Phase Transformation $\gamma \rightarrow (\gamma + \alpha)$ in Alloys of Iron with Nickel

the lattice in the case of martensitic transformations. The forming inter-layer of the γ-phase is located parallel to the plane (111) of the γ-phase. Apparently for a tempering temperature of 400°C the lattice coherence is disturbed in the initial stage of transformation, which brings about a braking of the transformation process. Further increase in the growth of the nuclei of the α-phase is by diffusion; deformation zones are formed in the matrix around the nuclei.
There are 2 figures, 1 table and 4 references, 2 of which are Soviet, 2 English.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 23, 1956 (initially), Feb.8,1957 (after revision).

1. Iron-nickel alloys--Transformations 2. Iron-nickel alloys --Stability 3. Iron-nickel alloys--Casting 4. Iron-nickel alloys --Heat treatment 5. Iron-nickel alloys--X-ray analysis

20-119-3-27/65

AUTHORS: Zakharova, M. I., Ignatova, I. A., Semenova, L. A., Khatanova, N. A.

TITLE: An Investigation of the Phase Composition of Iron-Vanadium and Iron-Chromium Alloys (Issledovaniye fazovogo sostava splavov zheleza, s vanadiyem i zheleza s khromom)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3, pp. 498-500 (USSR)

ABSTRACT: Though there is a domain of the σ-phase in the state diagrams of the alloys in question which passes over into the domain of solid solutions of the α-phase at >1234°C for Fe-V-alloys and at 820°C for Fe-Cr-alloys, these transformations are assumed to be more complicated, because these alloys are transformed rapidly in the single-phase region of the σ- as well as of the α-phase. Thus the brittleness occurs very obviously after annealing at 400-550°C in these alloys that belong to the single-phase region. The plasticity is here reduced to zero, by this their practical applicability is restricted. According to references 3 and 4 a solid solution rich in chromium is assumed to precipitate at low annealing temperatures. An

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modification of the properties which does not correspond to the single-phase structure of the solid solution was observed also above the transformation temperature from σ- into the α-phase (ref. 6,7). It is difficult to be explained by the atomic regulation which is assumed at low as well as at high temperatures by several authors (ref 7). In the present paper the structure of the alloys in question was to be investigated after a heating between 1400 and 600°C with quenching in water. The investigation was carried out by means of X-ray diffraction methods in the polycrystal and by means of microscopical analysis. The alloys were homogenized after casting at 1300°C from 20 to 100 hours and immediately afterwards quenched in water. Structure of the iron-vanadium-alloys. The radiographs of the powder obtained by means of a file were taken with a chromium radiation. After a homogenization at 1300°C these alloys are (with a vanadium content of 28,5-74 %) not single-phase, but two-phase. It was proved microscopically that on a background of the crystals of the α-phase

(hardness $\sim$ 250 kg/mm^2) crystals of another phase with a hardness three times greater than the first mentioned become visible. The content of this last phase increases with increasing vanadium content. The radiograph confirmed this: 2 systems of lines appear on it. The other phase is denoted as β-phase by the authors. The content of the phases was determined in the case of different vanadium contents. The two phases still existed at temperatures above 1150°C. In the case of annealing at 800°C the alloy with V-content of 28,5 % consists of the α-phase only. From 43 % V on it consists of α- and γ-phase. In the case of annealing at 600:C and 49,5 % V it consists of the σ-phase only. Thus the course of the phase transformations in more complicated at a vanadium content of 28,5-74 % between 1400 and 600°C, than described by the phase diagram in publications, i.e.

$$(\alpha + \beta) \rightarrow \alpha \rightarrow (\alpha + \sigma) \rightarrow \sigma$$

 Chromium-iron-alloys. After the same treatment the

microscopical and radiographic investigation showed that the alloys with 35, 42 and 48 % Cr consist of the α- and β-phase crystals in the case of annealing at 1300°C. The amount of the β-phase decreases with dropping temperature (figure 1,2). In the chromium-iron-alloys with 35-48 % Cr the phase transformations consist of a polymorphous transformation of the σ- into the α-phase as well as of the α- into the β-phase, exactly as it was the case with the above mentioned vanadium.
There are 3 figures and 7 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: November 12, 1957, by A. A. Bochvar, Member, Academy of Sciences, USSR

SUBMITTED: November 12, 1957

KISHKIN, S.T.; POLYAK, E.V. Prinimali uchastiye: ROVENSKIY, G.M. [deceased]; IGNATOVA, I.A.; TRUSOVA, Ye.F.; TUMANOVA, G.I.

Kinetics of the failure of heat-resistant alloys during the creep process. Issl. po zharopr. splav. 7:295-308 '61. (MIRA 14:11)
(Heat-resistant alloys--Testing) (Creep of metals)

S/590/62/105/000/008/015
I031/I242

AUTHORS: Sheshenev, M.F., Candidate of Technical Sciences and Ignatova, I.V., Eng.

TITLE: Effect of cobalt on the structure and properties of 12% chromium steel

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. Trudy. v.105, 1962, 114-124

TEXT: The existing data on the effect of cobalt on heat-resisting properties of steel are scarce and often contradictory. A 12% Cr steel of the ЭИ 756 (EI756) type with the cobalt content varying from 0.4 to 3.68% was selected for study.

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I031/I242

Effect of cobalt on the structure...

The addition of cobalt sharply improved the heat-resisting properties and, especially, the creep behavior of the 12% Cr steel at 600-630°C. The maximum effect was obtained with 1.5-2% Co. Since the addition of cobalt has no effect on the precipitation of age-hardening elements like tungsten or molybdenum in the ferrite solid solution, the toughening effect is probably due to the contraction of lattice parameters (from 2.8669 to 2.8657 Å) caused by the diffusion of cobalt in the solid solution. There are 4 figures and 7 tables.

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PHASE I BOOK EXPLOITATION SOV/3767

Orlov, G. M., V. L. Lesnichenko, U. B. Utemisov, V. I. Mazurov, and K. F. Ignatova

Izgotovleniye liteynykh form pressovaniyem pod bol'shim davleniyem (High-Pressure Method of Making Foundry Molds) Moscow, 1958. 28 p. (Series: Peredovoy opyt proizvodstva. Ser. "Tekhnologiya mashinostroyeniya," vyp. 31, Liteynoye proizvodstvo) 4,000 copies printed.

Sponsoring Agencies: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR, and Moscow Dom nauchno-tekhnicheskoy propagandy imeni F. E. Dzerzhinskogo.

Ed.: L. S. Konstantinov; Reviewer: L. M. Garmash; Tech. Ed.: R. A. Sukhareva.

PURPOSE: This booklet is intended for metallurgists specializing in the production of castings.

COVERAGE: This booklet deals with the results of experimental investigations undertaken by NIITAvtoprom of the process of compression molding under high pressure. Practical recommendations are presented, and an investigation of the basic production parameters conducted by the authors at NIITAvtoprom

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IGNATOVA, K.F.

Distr: 4E2c

Molding mix. V. L. Lesnichenko, K. F. Ignatova, N. G. Intyakov, A. S. Evseev, and Yu. A. Preobrazhenskii. U.S.S.R. 106,800, Feb. 25, 1959. Molds made of bitumen or peat wax 1.5-4.5, bentonite 2-5, graphite or alum 1-2, water 0.5%, and the rest quartz sand are used for scorch-free castings.

M. Hosch

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PM

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ORLOV, G.M.; IGNATOVA, K.F.; LESNICHENKO, V.L.; MAZUROV, V.I.; UTEMISOV, U.B.

Progressive molding method. Lit.proizv. no.2:6-8 F '60. (MIRA 13:5)

(Molding (Founding))

ILNATOVA, L.

"255 kg. of Tabacco from One Decare." p. 17,
(KOOPERATIVNO ZEMEDELIE, Vol. 9, No. 12, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

IVANOVA, L.

"Agricultural Cooperatives in the Village of Krupnik." p. 8,
(KOOPERATIVNO ZEMEDELIE, Vol. 10, No. 2, Feb. 1955, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

IGNATOVA, I.

Woman cotton picker of Cherkovo. p. 2.
KOOPERATIVNO ZEMEDELIE, Sofiya, Vol. 10, no. 7, July 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

IGNATOVA, L.

A new vision is born. p. 11.

Vol. 10, no. 9, Sept. 1955
KOOPERATIVNO ZEMEDELIE
Sofiya, Bulgaria

So: Eastern European Accession Vol. 5 No. 1, Jan. 1956

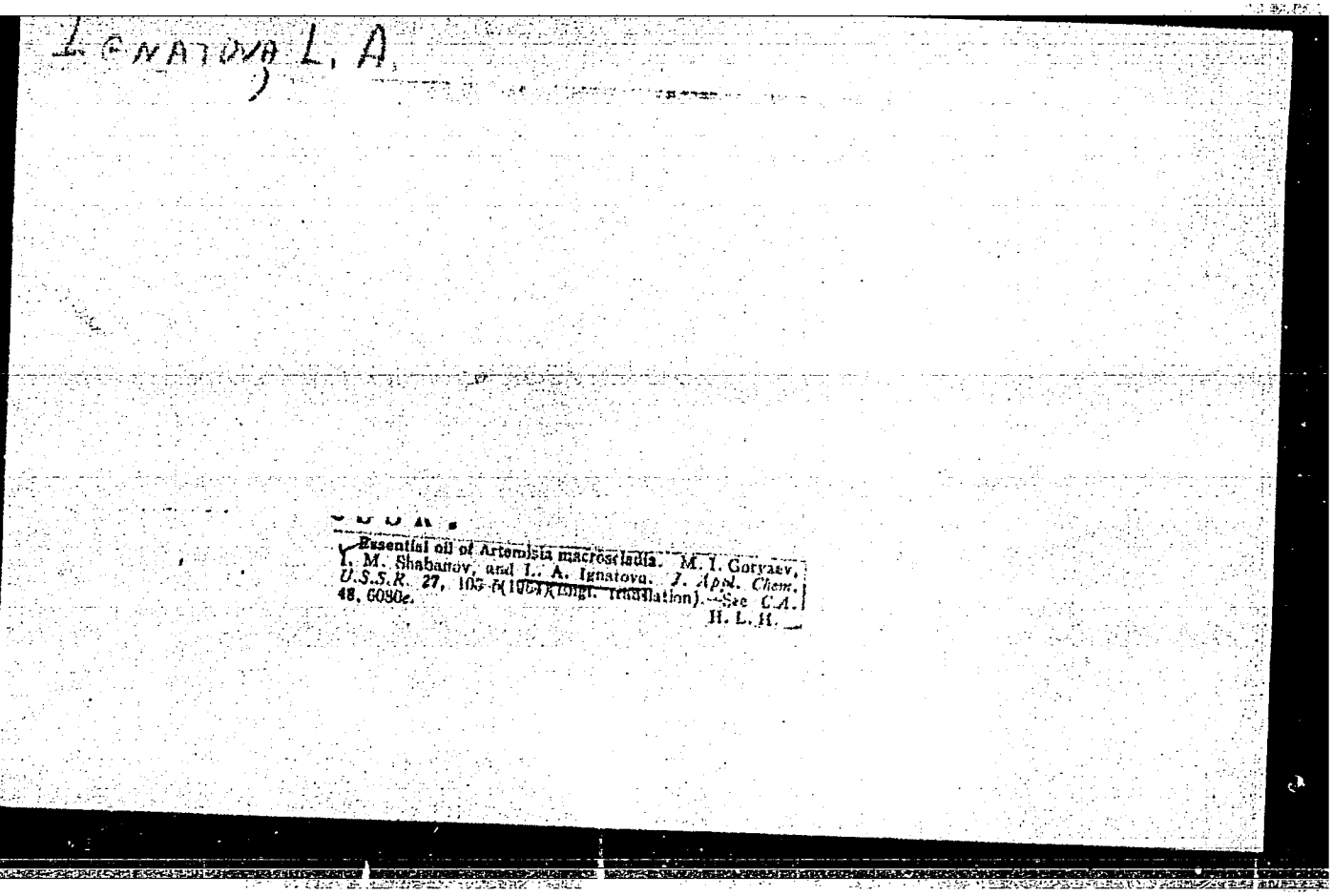
IGNATOVA, L.

Is it profitable for Dolni Lozen to raise poultry? p. 6.
(Kooperatvino Zemedelie, Vol. (12) no. 3, Mar. 1957. Sofiia, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10 October 1957. Uncl.

Chemical Abstracts
May 25, 1954
Pharmaceuticals,
Cosmetics, and Perfumes

Essential oil of Artemisia mogoltavica. M. I. Goryaev, L. M. Shabanov, and L. A. Ignatova. *Izvest. Akad. Nauk Kazakh. S.S.R. No. 123, Ser. Khim.* No. 7, 75–8(1953).—The essential oil of *A. mogoltavica* contains 30.77% carbonyl compds., including 17.44% camphor, and other substances including tujone which was identified as the 2,4-dinitrophenylhydrazone, m. 101–6°. The oil contains 12.3% cineole, 8.72% free alcs., and 10.04% esterified alcs.
G. M. Kosolapoff



IGNATOVA L. A.

USSR

Essential oil of Artemisia macrocladia. M. I. Goryaev, I. M. Shabanov, and L. A. Ignatova. *J. Appl. Chem. U.S.S.R.* 27, 105-6 (1954) (Engl. translation). See *C.A.* 48, 6090e.

H. L. H.

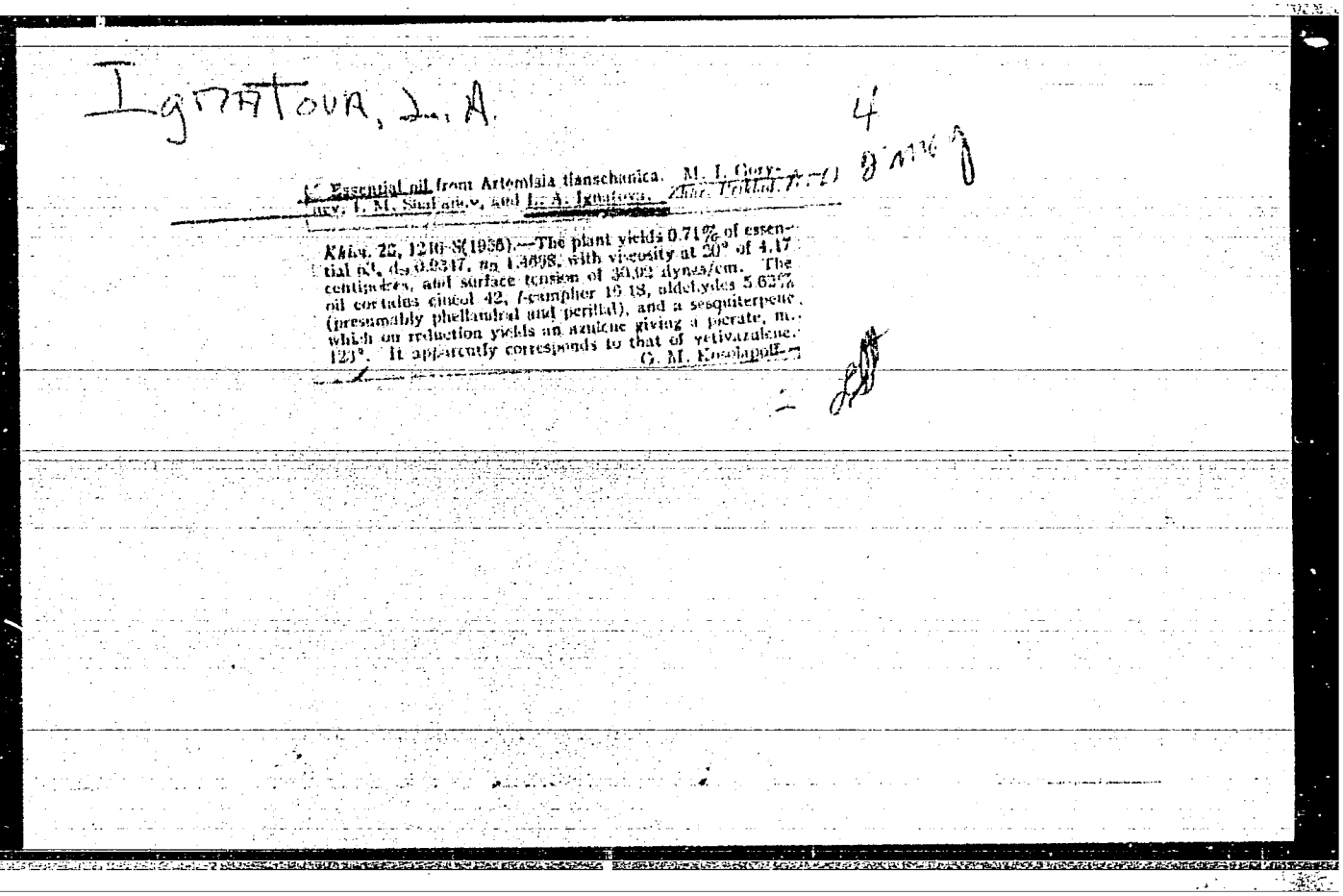
Chemical Abstracts
May 25, 1954
Pharmaceuticals,
Cosmetics, and Perfumes

√ Essential oil of Artemisia macrosciadia. M. I. Gorayev, I. M. Shabanov, and L. A. Ignatova. *Zhur. Prikład. Khim.* 27, 115-17(1954).—The essential oil of *A. macrosciadia* contains 40% cineole and 35% camphor. The oil contains small amts. of org. acids among which only AcOH was identified. Pigments which give the oil a green color are also present; their nature is unknown. The higher fractions contain sesquiterpenes which form azulenes. The azulene picrates m. about 125°. The green pigments are quite distinct from the azulenes. G. M. Kosolapoff

IGNATOVA, L. A.

USSR.

Carbonyl and carbinol compounds of the essential oil of Artemisia cucina. L. M. L. Gorvacy, L. A. Ignatova, and I. M. Shabunov. *Trest. Akad. Nauk Kazakh. S.S.R., Ser. Khim.* 1955, No. 8, 144-52(in Russian; Kazakh summary, 153).—The oil contains 6% carbonyl compds., mainly isomeric thujones; the corresponding alcs. as well as thujone are the common impurities in cineole. For prepn. of pure cineole a treatment with Na is recommended. The oil contains 5-7% thujyl alc, which appears to be the principal terpene alc. G. M. Kosolapoff



Ignatova, L. A.

4

Essential oil from Artemisia tianschanica. M. I. Goryaev, L. M. Stafanov, and L. A. Ignatova. *Zhur. Obshchei Khim.* 7, 1210-8(1936).—The plant yields 0.71% of essential oil, d_4^{20} 0.9347, n_D 1.4898, with viscosity at 20° of 4.17 centipoises, and surface tension of 30.02 dynes/cm. The oil contains cineol 42, *l*-camphor 16.18, aldehydes 5.62% (presumably phellandral and perillal), and a sesquiterpene which on reduction yields an azulene giving a picrate, m. 123°. It apparently corresponds to that of vetivazulene. G. M. Kosolapoff

IGNATOVA, L.A.

Materials on a study of essential oils of some species of Artemisia. M. I. Goryaev, T. B. Serkebaeva, L. A. Ignatova, and I. M. Shabanov. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Khim.* 1956, No. 9, 50-4.—*A. lessingiana* contains essential oil which contains terpene alcs., phenols, 54.4% carbonyl compds., including 43.8% camphor, and aldehydes. The oil from *A. persica* contains 7.2% *d*-α-pinene, 18.3% borneol, 25.5% borneol esters, especially caproate, 14% camphene, 1.43% phenols, and small amts. of terpene alcs. and carbonyl compds. *A. arenaria* carries essential oil which contains monocyclic terpenes (nitroso deriv., m. 167°) and apparently azulene forming sesquiterpenes. O. M. Kosolapoff

KOVALENKO, P.N.; IGNATOVA, L.A.

Separation of cadmium from small amounts of zinc in a nitric acid-citric acid solution by means of an aluminum cathode, and a polarographic determination of zinc. Uch. zap. RGU 40:127-137 '58.
(MIRA 13:10)

(Cadmium) (Zinc--Analysis) (Aluminum)

GORYAYEV, M.I.; IGNATOVA, L.A.; TOLSTIKOV, G.A.

Ultraviolet absorption spectra of 2,4-dinitrophenylhydrazones of certain terpenes. Izv.AN Kazakh.SSR.Ser.khim. no.1:85-86 '59. (MIRA 13:6)

(Terpenes--Spectra) (Hydrazones--Spectra)

GORYAYEV, M.I.; IGNATOVA, L.A.

Essential oil from Trachyspermum copticum. Izv.AN Kazakh.SSR.Ser. khim. no.1:90-94 '59. (MIRA 13:6)
(Essences and essential oils)